

**WHAT IS CLAIMED IS:**

1. A system comprising:
  - 5 a plurality of application servers, wherein each of the plurality of application servers is configured to access session data, wherein the session data represents the state of a client session for a client; and
  - 10 a distributed store comprising a primary state of the session data configured for access by the plurality of application servers, wherein the distributed store is configured to provide locked access to the primary state to a process executing within one of the plurality of application servers, wherein, while the primary state is locked for the process, other processes cannot access the primary state.
  - 15 2. The system as recited in claim 1, wherein, after the process has complete a current access of the primary state, the process is configured to hold locked access until after receiving a request to release the locked access.
  - 20 3. The system as recited in claim 2, wherein the distributed store is configured to request the process to release the locked access, wherein the process is configured to release the locked access in response to said request.
  - 25 4. The system as recited in claim 1, wherein the process is configured to release the locked access when the process no longer requires the locked access to the primary state.
  - 30 5. The system as recited in claim 1, wherein the process is configured to provide locked access to at least a portion of the primary state to a thread executing within the process, wherein, while the at least a portion of the primary state is locked for

the thread, other threads executing within the process cannot access the at least a portion of the primary state.

6. The system as recited in claim 1, wherein the distributed store is  
5 configured to grant the locked access to the process executing in one of the application servers in response to a request for locked access from that process.

7. The system as recited in claim 1, wherein while the process holds the locked access, the distributed store is configured to buffer one or more requests for locked  
10 access from one or more other processes executing within one or more of the plurality of application servers.

8. The system as recited in claim 7, wherein, if the process releases the locked access to the primary state, the distributed store is configured to provide locked  
15 access to one of the other processes in response to the other process's buffered request.

9. The system as recited in claim 1, wherein another process executing within one of the plurality of application servers is configured to request locked access to the primary state from the distributed store, and wherein if no process currently holds locked  
20 access to the primary state, the distributed store is configured to provide locked access to the primary state to the other process.

10. A system comprising:  
25 a plurality of application servers, wherein each of the plurality of application servers is configured to access session data, wherein the session data represents the state of a client session for a client; and  
30 a distributed store comprising a primary state of the session data configured for access by the plurality of application servers, wherein the distributed store

is configured to provide locked access to the primary state to a process executing within one of the plurality of application servers, wherein, while the primary state is locked for the process, other processes cannot access the primary state;

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wherein the process is configured to provide locked access to portions of the primary state to one or more threads executing within the process, wherein, while a portion of the primary state is locked for one of the threads, other threads executing within the process cannot access the particular portion of the primary state.

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11. The system as recited in claim 10, wherein, after the process has completed a current access of the primary state, the process is configured to hold locked access until after receiving a request to release the locked access.

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12. The system as recited in claim 11, wherein the distributed store is configured to request the process to release the locked access, wherein the process is configured to release the locked access in response to said request.

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13. The system as recited in claim 10, wherein the distributed store is configured to grant the locked access to the process executing in one of the application servers in response to a request for locked access from that process.

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14. The system as recited in claim 12, wherein the distributed store is configured to buffer one or more requests for locked access from one or more other processes executing within one or more of the plurality of application servers.

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15. The system as recited in claim 14, wherein, if the process releases the locked access to the primary state, the distributed store is configured to provide locked access to one of the other processes in response to the other process's buffered request.

16. The system as recited in claim 12, wherein another process executing  
within one of the plurality of application servers is configured to request locked access to  
the primary state from the distributed store, and wherein if no process currently holds  
5 locked access to the primary state, the distributed store is configured to provide locked  
access to the primary state to the other process.

17. A system comprising:

10 a plurality of application servers, wherein each of the plurality of application  
servers is configured to access session data, wherein the session data  
represents the state of a client session for a client;

15 a distributed store comprising a primary state of the session data configured for  
access by the plurality of application servers; and

20 means for providing locked access to the primary state to a process executing  
within one of the plurality of application servers, wherein, while the  
primary state is locked for the process, other processes cannot access the  
primary state.

18. The system as recited in claim 17, further comprising means for providing  
locked access to at least a portion of the primary state to a thread executing within the  
process, wherein, while the at least a portion of the primary state is locked for the thread,  
25 other threads executing within the process cannot access the at least a portion of the  
primary state.

19. The system as recited in claim 17, further comprising means for releasing  
the lock when the process no longer requires locked access to the primary state.

20. A method comprising:

a process executing within one of a plurality of application servers requesting  
locked access to a primary state of session data stored by a distributed  
store; and

granting a lock to the process requesting locked access, wherein, while the process  
holds the lock, other processes cannot access the primary state in the  
distributed store.

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21. The method as recited in claim 20, further comprising the process holding  
the lock granting a thread-level lock to a portion of the primary state to a thread running  
within the process, wherein, while the thread holds the thread-level lock, other threads  
cannot access the portion of the primary state.

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22. The method as recited in claim 20, further comprising:

requesting the process release the locked access; and

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the process releasing the locked access in response to said request.

23. The method as recited in claim 20, further comprising the process  
releasing the lock when the process no longer requires locked access to the primary state.

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24. The method as recited in claim 20, further comprising buffering one or  
more requests for locked access from one or more other processes executing within one  
or more of the plurality of application servers.

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25. The method as recited in claim 24, further comprising, if the process  
releases the locked access to the primary state, the distributed store granting locked access

to one of the other processes in response to the other process's buffered request.

26. A method comprising:

5 a process executing within one of a plurality of application servers requesting locked access to a primary state of session data stored by a distributed store;

10 granting a lock to the process requesting locked access, wherein, while the process holds the lock, other processes cannot access the primary state in the distributed store; and

15 the process holding the lock granting a thread-level lock to a portion of the primary state to a thread running within the process, wherein, while the thread holds the thread-level lock, other threads cannot access the portion of the primary state.

27. The method as recited in claim 26, further comprising:

20 requesting the process release the locked access; and

the process releasing the locked access in response to said request.

25 28. The method as recited in claim 26, further comprising the process releasing the lock when the process no longer requires locked access to the primary state.

30 29. The method as recited in claim 26, further comprising buffering one or more requests for locked access from one or more other processes executing within one or more of the plurality of application servers.

30. The method as recited in claim 29, further comprising, if the process releases the locked access to the primary state, the distributed store granting locked access to one of the other processes in response to the other process's buffered request.

5 31. A computer-accessible medium comprising software instructions executable to implement:

receiving a request from a process executing within one of a plurality of application servers for locked access to a primary state of session data comprising one or more attributes on a distributed store; and  
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granting locked access to the primary state to the process, wherein, while the primary state is locked for the process, other processes cannot access the primary state.  
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32. The computer-accessible medium as recited in claim 31, wherein the software instructions are further executable to implement requesting that the process release the locked access.

20 33. The computer-accessible medium as recited in claim 31, wherein the software instructions are further executable to implement buffering one or more requests for locked access from one or more other processes executing within one or more of the plurality of application servers.

25 34. The computer-accessible medium as recited in claim 33, wherein the software instructions are further executable to implement, if the process releases the locked access to the primary state, granting locked access to one of the other processes in response to the other process's buffered request.

30 35. A computer-accessible medium comprising software instructions executable to implement:

a process executing within one of a plurality of application servers requesting locked access to a primary state of session data stored by a distributed store;

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the process receiving locked access, wherein, while the process holds the lock, other processes cannot access the primary state in the distributed store; and

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the process granting a thread-level lock to a portion of the primary state to a thread running within the process, wherein, while the thread holds the thread-level lock, other threads cannot access the portion of the primary state.

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36. The computer-accessible medium as recited in claim 35, wherein the software instructions are further executable to implement:

the process receiving a request to release the locked access; and

the process releasing the locked access in response to said request.

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37. The computer-accessible medium as recited in claim 35, wherein the software instructions are further executable to implement the process releasing the lock when the process no longer requires locked access to the primary state.